



NOAA, NATIONAL WEATHER SERVICE, WEATHER FORECAST OFFICE

Miami, Florida 33165

<http://weather.gov/southflorida>

Hot Summer Rolls On

August 2, 2010: July 2010 continued the streak of hotter than normal temperatures across South Florida so far this summer. All 4 main regional climate sites were in the top 5 warmest July periods on record. This comes on the heels of record-breaking hot temperatures in May and June.

Following are the average July 2010 temperatures and departure from normal for the 4 sites:

- **Miami International Airport** had an average July temperature of 84.9 degrees Fahrenheit. This is 1.2 degrees above the normal for July, and was the 5th warmest July on record for the Miami area. The warmest July on record is 85.1 degrees set back in 2005. The minimum temperature did not drop below 80 on 14 days in July, breaking the previous record of 13 days set in 2005 and 1977.
- **Palm Beach International Airport** had an average July temperature of 84.9 degrees Fahrenheit. This is 2.4 degrees above the normal for July, and was the 2nd warmest July on record for the West Palm Beach area, barely falling short of the record of 85.0 set in 1942. The minimum temperature did not drop below 80 on 11 days in July, breaking the previous record of 9 days set in 2005 and 1902.
- **Fort Lauderdale/Hollywood International Airport** had an average July temperature of 84.4 degrees Fahrenheit. This is 1.8 degrees above the normal for July, and was the 2nd warmest July on record for the Fort Lauderdale area, barely falling short of the record of 84.6 set in 2009. The minimum temperature did not drop below 80 on 13 days in July, one day short of the record of 14 days set in 2006.
- **Naples Municipal Airport** had an average July temperature of 84.3 degrees Fahrenheit. This is 2.3 degrees above the normal for July, and was the 5th warmest July on record for the Naples area. The warmest July on record is 85.0 degrees set back in 1942.

The strong high pressure which has covered most of the eastern United States this summer continued its firm grasp in July, acting to warm the lower to mid levels of the atmosphere and limiting the amount of cloud cover over south Florida (Figure 1). The resulting prevailing easterly wind flow contributed to

the warm overnight lows over the eastern metro sites, and hot daytime highs over the interior and western areas.

Highest July temperature readings for the main reporting stations were as follows:

- Miami: 95 on July 11.
- Fort Lauderdale: 95 on July 10.
- West Palm Beach: 96 on July 12 and 30.
- Naples: 95 on July 17, 18, 19, 21 and 22.

Over interior sections, temperatures soared into the upper 90s to around 100 degrees from July 8 to July 10, as well as during the last week of July. Unofficial high temperature readings of 101 degrees were recorded at Oasis Ranger Station on July 8th and at Brighton Reservation in Glades County on July 28th and 29th. Big Cypress Reservation hit 99 degrees on July 29th.

Rainfall/Severe/Tropical Weather

Most of south Florida received near to slightly below normal rainfall in July, as the dominant high pressure pattern across the eastern United States limited the overall coverage and duration of showers and thunderstorms. Precipitation in July was above normal in an area covering most of Hendry County and extending east and southeast across the peninsula to parts of the Broward and Miami-Dade county metro areas. Another area of above normal precipitation was noted over southern sections of Collier County and over the far southern Everglades. These values are consistent with the overall precipitation pattern observed so far this wet season (Figure 2), due mainly to the persistence of the high pressure regime across the eastern and southeastern United States since May.

Two significant rainfall episodes occurred in July. The first occurred around the July 4th holiday when a break in the prevailing high pressure regime allowed for a frontal system to extend across central Florida. This led to high moisture values and numerous showers and thunderstorms over most of South Florida. The other event was associated with Tropical Storm Bonnie on July 23. Rainfall values with Bonnie ranged from 1-3 inches over Miami-Dade and Broward counties, to a half-inch over most of the remainder of the southern Florida peninsula.

Most of the severe weather in July was associated with flooding around the July 4th holiday. Strong thunderstorm wind gusts affected Miami-Dade County on the late evening of July 15th.

Below are July rainfall totals and departure from normal in inches for select south Florida locations:

Location	July 2010 Rainfall	July Departure From Normal
Miami Int'l	7.36	+1.57
Fort Lauderdale Int'l	7.31	+0.61
Palm Beach Int'l	4.60	-1.37
Naples Regional	7.76	-0.22
Miami Beach	8.49	+4.86
Moore Haven	7.99	+1.32
Hollywood	13.97	+7.57
Fort Lauderdale Beach	12.70	
North Miami Beach	11.87	
Canal Point (Palm Beach)	8.93	+2.71
Immokalee	7.75	
Homestead General	7.61	
Hialeah	7.36	
Juno Beach	6.94	
Ortona	6.91	
Marco Island	6.64	
Cooper City	6.58	
Oasis Ranger Station	6.48	
NWS Miami (FIU Main)	4.82	
Big Cypress Reservation	4.67	
Brighton Reservation (Glades County)	5.86	
LaBelle	5.48	-2.21
The Redland (Miami-Dade)	4.39	-1.36
Palm Beach Gardens	4.17	

Wet season 2010 totals through July 31 and departures from normal are as follows for selected sites in South Florida:

Location	Wet Season 2010 Rainfall (May 16-July 31)	Wet Season 2010 Departure From Normal
Miami Int'l	17.96	+0.78
Fort Lauderdale Int'l	14.37	-5.61
Palm Beach Int'l	11.38	-4.95
Naples Regional	19.02	+0.69
Miami Beach	17.93	+7.18
Moore Haven	18.93	+3.37
Hollywood	23.30	+4.03
Canal Point (Palm Beach)	21.56	+5.32

LaBelle	17.89	-0.70
The Redland (Miami-Dade)	13.48	-6.91

Outlook for August

The [Climate Prediction Center's outlook for August](#) calls for a continued likelihood of warmer than normal temperatures across south Florida. CPC's precipitation outlook for August calls for equal chances of above or below normal rainfall. However, historical analogs of years in which winter El Niño conditions eventually transitioned to La Niña by late summer and fall suggest a tendency towards above normal August precipitation in south Florida. La Niña conditions are developing in the eastern Pacific Ocean, with [models indicating full-fledged La Niña conditions during August](#) and continuing through the end of 2010.

August marks the beginning of the active part of the Atlantic hurricane season. South Florida is prone to August tropical cyclones, and all persons are advised to make sure that their hurricane kits and plans are prepared and ready to be used in case a storm threatens or impacts our region. Please visit [ready.gov](#) for a full list of hurricane preparedness materials.

For the latest weather conditions, forecasts, warnings, advisories and statements, please visit the National Weather Service Miami-South Florida Forecast Office's web site at <http://www.weather.gov/southflorida>.

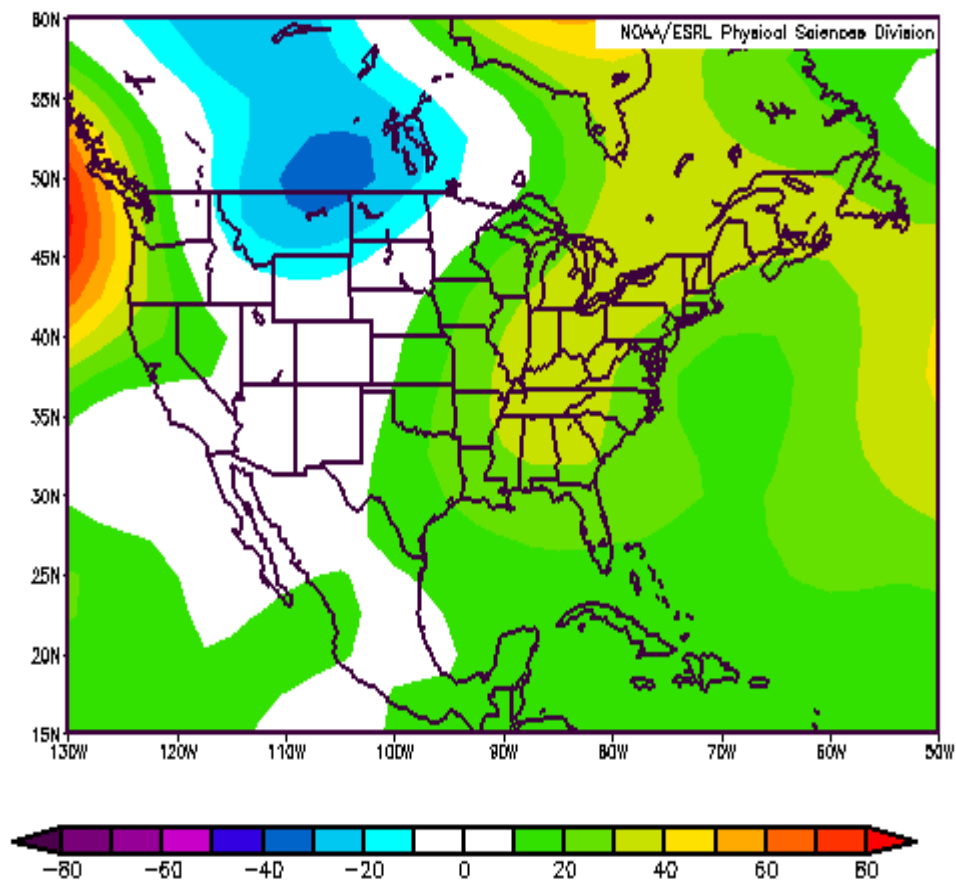


Figure 1: 500 MB Height Anomalies – July 1 through July 28, 2010. Green and light green/yellow areas depict stronger than normal high pressure over the eastern half of the United States.

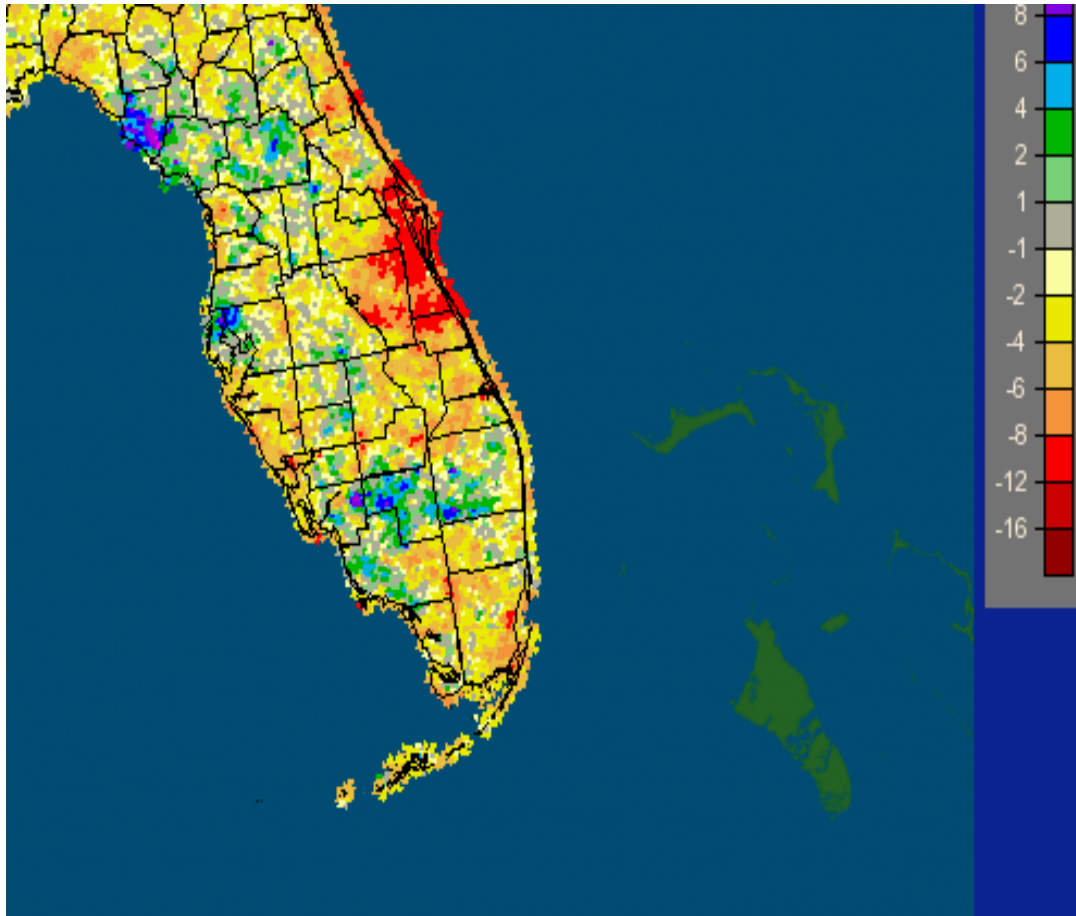


Figure 2: Precipitation departure from normal for June through July 2010. Green, blue and purple denote areas of above normal precipitation. Yellow, orange and red denote areas of below normal precipitation.